IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A vertical drawing method for producing a cylindrical glass body, ~~particularly of quartz glass,~~ **said method** comprising**:**

continuously feeding a glass cylinder to a heating zone having a vertically oriented heating tube**[,];**

~~adjusting the longitudinal cylinder axis of the glass cylinder relative to the longitudinal axis of the heating tube,~~

zonewise softening the glass cylinder**[,];**

drawing a glass strand from the softened glass cylinder**[,];** and

cutting the glass strand to size to obtain the cylindrical glass body**;[,]** **and**

an ~~characterized in that the~~ adjusting operation **that** comprises sensing a value for a first radial xy-position of **a** ~~the~~ longitudinal cylinder axis ~~(16)~~ of the glass cylinder ~~(4)~~ **or of a test glass cylinder** in a first horizontal sensing plane ~~(E1)~~, drawing the glass cylinder ~~(4)~~ **or the test glass cylinder** arranged in the first xy-position into a test glass strand ~~(10)~~, and carrying out the following ~~method~~ steps once or repeatedly:

a) measuring an actual state of a radial circular or annular dimension of the test glass strand,

b) determining a deviation between the actual state and a desired state of the circular or annular dimension ~~with respect to its size~~ **relative to a magnitude**

and position **of said deviation** ~~**in consideration of the position of the glass cylinder (4)**~~ relative to **an** ~~**the**~~ inner wall of the heating tube ~~(1)~~ during drawing,

c) calculating a corrected xy-position of the longitudinal cylinder axis ~~(16)~~ on the basis of a correction factor ~~(K)~~ and the **magnitude** [~~size~~] and position of the deviation,

d) **repositioning** ~~**installing**~~ the glass cylinder ~~(4)~~ **or the test glass cylinder** in the heating tube ~~(1)~~ such that the longitudinal cylinder axis (~~16~~) extends at least in the first horizontal sensing plane ~~(E1)~~ in the corrected xy-position, and

e) drawing the glass cylinder ~~(4)~~ **or the test glass cylinder** ~~**installed**~~ in the corrected xy-position to obtain a further test glass strand ~~(10)~~.

2. (Currently Amended) The method according to claim 1, ~~**characterized in that**~~ **wherein** the sensing of the value for the first radial xy-position comprises producing an optical image of the glass cylinder ~~(4)~~ in the first sensing plane ~~(E1)~~ and at least part of the heating tube ~~(1)~~ or a calibration body ~~(5a, 5b)~~ in stationary relation with the heating tube ~~(1)~~, and evaluating the optical image.

3. (Currently Amended)The method according to claim 1, ~~**characterized in that**~~ **wherein** **the** ~~**a tubular**~~ test glass strand ~~(10)~~ is **tubular** ~~**drawn**~~.

4. (Currently Amended) The method according to claim 3, ~~**characterized in that**~~ **wherein** the measurement ~~**according to method step a)**~~ **of the actual state of radial circular or**

annular dimension of the test glass strand comprises measuring the wall thickness extension of the tubular test glass strand ~~(10)~~.

5. (Currently Amended) The method according to claim 3, ~~characterized in that~~ **wherein** ~~a~~ **the** tubular test glass strand ~~(10)~~ is drawn with an outer diameter of not more than 50 mm**.** ~~, preferably between 10 mm and 20 mm.~~

6. (Currently Amended) The method according **to** claim 1, ~~characterized in that~~ **wherein** the measurement **of the actual state of radial circular or annular dimension of the test glass strand** ~~according to method step a)~~ is carried out during drawing, **wherein** the circular or annular dimension **is** ~~being~~ determined at a plurality of measurement points distributed over **a** ~~the~~ circumference of the test glass strand ~~(10)~~.

7. (Currently Amended) The method according to claim **3** [~~1~~], **wherein** ~~characterized in that~~ the measurement **of the actual state of radial circular or annular dimension of the test glass strand** ~~according to method step a)~~ is carried out on pieces of the test glass strand ~~(10)~~ that have been cut to length, using a stationary wall thickness measuring device.

8. (Currently Amended) The method according to **claim 3** ~~any one of the preceding claims~~, ~~characterized in that~~ **wherein** in a tubular test glass strand**,** ~~(10) a distance A between~~ the xy-position and the corrected xy-position **are separated by a distance A,**

as defined by ~~is calculated on the basis of~~ the following dimensioning rule:

$$A = K \times \text{wall } \textbf{lopsidedness } [\sout{\textbf{one-sidedness}}]$$

where K is a correction factor ranging between 5 and 40 if the wall **lopsidedness** [~~one-sidedness~~] is **determined** [~~indicated~~] as **a** [~~the~~] differential amount between ~~the~~ **a** maximum value and ~~the~~ **a** minimum value of the wall thickness.

9. (Currently Amended) The method according to claim 1, ~~characterized in that~~ **wherein** a value is determined for the first radial xy-position of the longitudinal cylinder axis of the glass cylinder ~~(4)~~ in a second horizontal sensing plane ~~(E2) which extends spaced apart from the first sensing plane (E1)~~.

10. (Currently Amended) The method according to claim 1, ~~characterized in that~~ **wherein** installing the glass cylinder ~~(4)~~ **in the heating tube** ~~according to method step d)~~ comprises computer-controlled transportation of the glass cylinder ~~(4)~~ to the corrected xy-position.

11. (Currently Amended) The method according to claim 1, ~~characterized in that~~ **wherein** **the** [~~a~~] glass cylinder **is** ~~(4) consisting~~ of test material ~~is used~~.

12. (Currently Amended) An apparatus for producing a cylindrical glass body by means of a

vertical drawing method, comprising:

a heating zone which includes a vertically oriented heating tube, and an adjusting system [~~means for~~] adjusting a ~~the~~ longitudinal cylinder axis of a glass cylinder ~~(4) to be~~ drawn relative to a ~~the~~ longitudinal axis of the heating tube, ~~characterized in that~~ wherein the adjusting system [~~means~~] comprises:

a) a sensing apparatus [~~means (6, 7, 6b, 7b) for~~] sensing a value for a first radial xy-position of the longitudinal cylinder axis ~~(16)~~ of the glass cylinder ~~(4)~~ in a first horizontal sensing plane ~~(E1)~~,

b) a measuring apparatus [~~means (11, 12) for~~] measuring an actual state of a radial circular or annular dimension of a test glass strand ~~(10)~~ drawn from the glass cylinder ~~(4)~~,

c) a microprocessor device ~~(8) for~~ determining a deviation between the actual state and a desired state of the circular or annular dimension in terms of ~~with respect to its size~~ a magnitude and position of said deviation ~~in consideration of the position of the glass cylinder (4)~~ relative to the inner wall of the heating tube ~~(1)~~ during drawing, and for calculating a corrected xy-position of the longitudinal cylinder axis ~~(16)~~ inside the heating tube ~~(1)~~ on the basis of a correction factor ~~(K)~~ and the ~~size~~ magnitude and position of the deviation, and

d) a displacement apparatus [~~means (14)~~] by which the glass cylinder ~~(4)~~ is ~~installed~~ positioned in the heating tube ~~(1)~~ such that the longitudinal cylinder axis ~~(16)~~ extends at least in the first horizontal sensing plane ~~(E1)~~ in the xy-

position.

13. (Currently Amended) The apparatus according to claim 12, **wherein** ~~**characterized in that**~~ the sensing **apparatus** [~~**means**~~] comprises a first optical sensing means ~~(6, 7)~~ for producing an optical image of the glass cylinder ~~(4)~~ in the first sensing plane ~~(E1)~~ and at least a part of the heating tube ~~(1)~~ or a calibration body ~~(5a, 5b)~~ which is in stationary relationship with the heating tube ~~(1)~~.

14. (Currently Amended) The apparatus according to claim 13, ~~**characterized in that**~~ **wherein** the first sensing means ~~(6, 7)~~ comprises a first camera and a second camera, each being arranged in the first sensing plane ~~(E1)~~ such that **a** ~~**the**~~ respective viewing direction thereof extends in a direction perpendicular to the longitudinal cylinder axis ~~(16)~~.

15. (Currently Amended) The apparatus according to claim 14, ~~**characterized in that**~~ **wherein** the sensing means comprises a second optical sensing means ~~(6b, 7b)~~ with a third camera and a fourth camera, each being arranged in a second sensing plane ~~(2)~~ ~~**extending spaced apart from the first sensing plane (E1), in**~~ such ~~**a manner**~~ that **a** ~~**the**~~ respective viewing direction thereof extends in a direction perpendicular to the longitudinal cylinder axis ~~(16)~~.

16. (Currently Amended) The apparatus according to claim 12, **wherein** ~~**characterized in that**~~ the measuring **apparatus** [~~**means**~~] comprises a plurality of wall thickness measuring devices distributed over **a** ~~**the**~~ circumference of the test glass strand ~~**(10)**~~.

17. (Currently Amended) The apparatus according to claim 12, **wherein** ~~**characterized in that**~~ the measuring **apparatus** [~~**means**~~] comprises a wall thickness measuring device ~~**(11; 12)**~~ which is rotatable about **an** ~~**the**~~ outer circumference of the test glass strand ~~**(10)**~~.

18. (New) The method according to claim 1, wherein the cylindrical glass body is quartz glass.

19. (New) The method according to claim 3, wherein the tubular test glass strand is drawn with an outer diameter between 10 mm and 20 mm.

20. (New) A method for drawing a glass body from a glass cylinder, said method comprising:

positioning the glass cylinder in a vertically oriented heating tube;

feeding said glass cylinder continuously to a heating zone in the heating tube and softening the glass cylinder therein;

drawing a glass strand from the softened glass cylinder; and

cutting the glass strand to size to obtain the cylindrical glass body;

said positioning of the glass cylinder comprising

drawing a test strand from the cylinder or from a test cylinder supported with a longitudinal axis thereof extending vertically through an xy-position in a generally horizontal sensing plane,

measuring a geometrical attribute of the test strand;

deriving a deviation of the geometrical property from a desired value of said geometrical attribute of the said geometrical attribute,

deriving a corrected xy-position from said deviation, and

positioning the cylinder or the test cylinder so that the longitudinal axis thereof extends through the corrected xy-position.

21. (New) The method of claim 20, wherein the steps of drawing, measuring, deriving, and positioning are repeated to yield a second corrected xy-position to which the cylinder is moved.

22. (New) The method of claim 21, wherein the geometrical attribute includes a data value indicative of lopsidedness and a data value indicative of the orientation of lopsidedness relative to the heating tube.

23. (New) The method of claim 22, wherein the test strand is tubular, and the data value indicative of lopsidedness is derived from a plurality of measurements of wall thicknesses of the tubular stand.

24. (New) The method of claim 22, wherein the xy-position is sensed by producing and evaluating an optical image of the glass cylinder in the horizontal sensing plane, and said positioning of the cylinder is accomplished automatically by a processor responsive to the sensed XY position and the geometrical property.